



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10**

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OFFICE OF
ECOSYSTEMS, TRIBAL AND
PUBLIC AFFAIRS

August 15, 2014

Ms. Sabrina Stadler
Forest Plan Revision Team Leader
Blue Mountains Forest Plan Revision
P.O. Box 907
Baker City, Oregon 97814

Re: EPA Region 10 Comments on the Draft Environmental Impact Statement and Proposed Revised Land Management Plans for the Malheur, Umatilla, and Wallowa-Whitman National Forests (EPA Project 10-015-AFS)

Dear Ms. Stadler:

We have reviewed the above-mentioned Draft Environmental Impact Statement (DEIS) and Proposed Revised Land Management Plan (Forest Plan) in accordance with our responsibilities under the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act. Under our NEPA Review policy and procedures, we rate DEIS documents by considering both the adequacy of the document and the potential environmental impacts of the action.

The DEIS documents the analysis of a No Action Alternative (Alternative A), and five action alternatives (Alternatives B through F). The Action Alternatives address five purposes and needs for the revised plans: (1) to more adequately protect and restore terrestrial plant and animal species and their habitats; (2) to address management of fuels and fire risk; (3) to more adequately protect and restore watersheds and aquatic habitats; (4) to address climate change; and (5) to recognize the interdependency of social and economic components with national forest management. Alternative B is the Modified Proposed Action, and Alternative E is identified as the Preferred Alternative. Alternative E would use vegetation management, aquatic and wildlife habitat treatments to emphasize active restoration to a greater extent than Alternative B. With regard to roads, Alternative E would focus on reducing hydrologic connectivity to roads as opposed to focusing on a metric related to road density. Consequently, riparian and aquatic habitat improvement activities and road maintenance proposals for investments in aquatic restoration within key and priority watersheds would be greater under Alternative E than under Alternative B.

The EPA is supportive of the overarching direction of Alternative E. We support the guidance provided within the 2014 revision of the Interior Columbia Basin Strategy and Aquatic Framework (ICB Strategy)¹. Our review of the DEIS finds Alternative E to be largely consistent with this strategy. Although our review does not focus on Alternative D, we would like to establish that the EPA would not support the riparian strategy proposed under Alternative D. We agree with the conclusions reached in the DEIS on page 280 regarding the Alternative D riparian strategy. This alternative would likely result

¹ http://www.icbemp.gov/html/ICBEMP_Frameworkmemorandum-and-strategy_2014.pdf

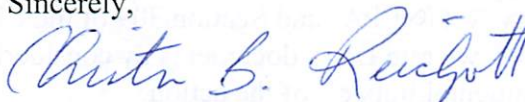
in a declining trend in overall watershed improvement and a potential for degradation of watershed condition, water quality, and soil quality in some areas.

In the comments that follow, we identify areas where we believe additional information, detail and/or standards and guidelines would improve the document and ensure consistency with the principles established and agreed to by the Interior Columbia Basin Deputies within the ICB Strategy. Our comments focus on the need for clarity regarding active management within riparian zones; the identification and management of landslide prone sites; the management of minerals and mining, particularly with regard to financial assurance; and the identification of old forest. We also indicate a preference for the more protective forage utilization rates under Alternative F.

Based on our review, we are rating the DEIS as EC-2 (Environmental Concerns – Insufficient Information). An explanation of this rating is enclosed. We support the collaborative, science-based approach taken by the Blue Mountains Planning Team and we encourage you to continue to engage with the many Forest Collaboratives working within the Blue Mountains Forests as you finalize this EIS and Forest Plan.

We appreciate the opportunity to review and comment on the DEIS, and we welcome the opportunity to engage with the planning team as you move forward. If you have any questions about our review, please contact me at (206) 553-1601, or by electronic mail at reichgott.christine@epa.gov. Or you may contact Teresa Kubo of my staff at (503) 326-2859, or by electronic mail at kubo.teresa@epa.gov.

Sincerely,

A handwritten signature in blue ink, reading "Christine B. Reichgott".

Christine B. Reichgott, Manager
Environmental Review and Sediment Management Unit

Enclosures

**EPA Detailed Comments on the
Draft Environmental Impact Statement and Proposed Revised Land Management Plans
For the Malheur, Umatilla, and Wallowa-Whitman National Forests
August 15, 2014**

Riparian Management Objectives

Consistent with the overall direction in the Aquatic Riparian Conservation Strategy² (ARCS), the DEIS and Draft Forest Plan do not identify specific metrics related to water temperature; large woody debris in forested systems; bank stability in non-forested systems; lower bank angle in non-forested systems; width/depth ratio; and pool frequency (wetted width and pools per mile). This represents a difference between ARCS and the Interim Objectives under PACFISH/INFISH. The PACFISH/INFISH strategy established specific riparian management objectives (RMOs) for each of these habitat components. The PACFISH/INFISH RMOs were established based on the best science available at the time; species recovery needs; and the desire to establish metrics against which to measure progress. While the PACFISH/INFISH RMOs may not be ecologically suited to all locations on all three Forests, we believe there is continued value in establishing more specific objectives related to riparian and aquatic conditions.

Recommendation: We recommend that the FEIS and Final Plan include more specificity (quantitative or qualitative) with regard to objectives for water temperature; large wood; bank stability; bank angle; width/depth ratio and pool frequency.

Riparian Restoration/Shade

It is noted within the DEIS (page 267) that many riparian zones within dry upland forests are highly departed from the historical range of variability. Alternative E is described as providing greater emphasis on vegetation restoration within the riparian zone (DEIS Volume 1, page 280). It would be helpful to have some additional specificity within the EIS and Forest Plan about what kinds of harvest treatments would be pursued in riparian zones. We recognize that treatments would be site specific, however a range of residual densities and canopy closures by site type would add to the reviewers understanding of the action alternatives.

Of particular interest to the EPA is the potential for management to influence solar shading (positively or negatively) in the riparian zone, as well as expected recovery periods when initial treatment may reduce shade. Page 273 of Volume 1 of the DEIS states, "For 303d-listed streams in National Forest System lands in the Blue Mountains, 59 percent of stream miles are listed due to stream temperature." While Total Maximum Daily Loads (TMDLs) in Oregon and Washington identify multiple sources of temperature impairment, it is recognized that stream shade provided by riparian vegetation has the most widespread achievable effect on reducing stream temperatures by reducing direct solar radiation. In order to protect water quality and support TMDL implementation, the EPA supports management that emphasizes the protection and restoration of shade as well as healthy communities of riparian vegetation.

Recommendation: We recommend that the FEIS and Forest Plan include additional specificity about the types of harvest treatments that would be pursued in riparian zones. We recommend that this

² U.S. Department of Agriculture, Forest Service. 2008. Aquatic and riparian conservation strategy (ARCS). Portland, OR, U.S. Department of Agriculture, Forest Service, Pacific Northwest Region: 49 p.

discussion include a range of residual densities and canopy closures by site type and anticipated timeframes for shade recovery.

Landslides

Landslides are recognized within the DEIS as a key disturbance that can influence watershed function. The DEIS also recognizes the need to buffer landslides and landslide-prone areas. The DEIS and Draft Forest Plan do not, however, include a discussion of landslides or landslide prone areas within the Forest Plan components (goals, desired conditions, objectives, standards and guidelines). Given the potential for landslides to alter landscapes and affect infrastructure, water quality, and fish and wildlife habitat (particularly after fire), we recommend the Final Plan give additional consideration to the identification and management of landslide prone areas. A discussion of landslides as a disturbance process could be included within Volume 2 of the FEIS (under Aquatic Species Diversity and Viability) and within section 1.4 of the Forest Plan (Disturbance Processes).

Recommendation: We recommend the FEIS and Forest Plan include a discussion of landslides as a disturbance process. We also offer the following Goals, Objectives and Standards as examples for Forest Service consideration:

- Site-specific analysis or field verification of broad-scale landslide-prone models (such as NetMap) shall be conducted in representative areas that are identified as landslide prone during site/project-scale analysis involving proposed management actions that may alter soil-hydrologic processes. Based on the analysis findings, design management actions to avoid the potential for triggering landslides (Standard).
- Field-verified high-risk landslide-prone sites are identified as not suited for timber production. Wood products harvested from high-risk landslide-prone sites will not contribute to the ASQ (Standard).
- Where proposed management actions may alter soil-hydrologic processes, representative sample of landslides and landslide-prone areas should be field-verified to identify and interpret controlling and contributing factors of slope stability. Integrate the resulting information with supporting data to provide a final stability assessment and identification of appropriate land management actions in landslide and landslide-prone areas (Guideline).

Roads

The preferred Alternative (Alternative E) includes a desired condition for open motor vehicle route density depending on the management area and winter elk habitat. Overall, the desired route density is below current route density. Alternative E differs from the other Action Alternatives in that it focuses on reducing hydrologic connectivity as opposed to focusing strictly on road density. The intent is to focus on roads that are contributing the most sediment to the aquatic and riparian system. The EPA supports this approach. As noted on page 264 of Volume 1 of the DEIS, an analysis of National Forest System roads within the Umatilla National Forest in the Wall Creek watershed found that 90 percent of road-related sediment is produced by 12 percent of the road network. Given limited resources, we believe targeting erosion reduction treatments to the most critical sites is a sound approach. The EPA supports mid-scale or watershed analysis as a tool for identifying these restoration opportunities. We also support the use of tools such as the Geomorphic Road Analysis and Inventory Package (GRAIP), which was used on the Wall Creek Watershed. We encourage the use of GRAIP (or GRAIP Light) in those watersheds known to be experiencing extensive road-related runoff. We believe GRAIP is one of the most effective tools currently available for analyzing the impacts of road systems on erosion and sediment delivery to streams.

Forage Utilization Rates

The EPA favors the Alternative F maximum utilization rates and minimum residual stubble height within riparian areas because we believe the Alternative F utilization rates would potentially result in higher rates of animal rotation. When cattle graze, the bite size and biting rate is governed by forage quality and quantity. Each time cattle are turned into a new pasture, they rapidly graze the best forage leaving lower quality forage behind. Through defecation and urination, the remaining forage quickly loses quality and utilization rapidly declines. In fresh pastures, the intake rate is high, and the cows get 'full' quickly, thereby minimizing time spent grazing.³ Less time grazing would reduce grazing-related environmental impacts. As noted on page 269 of Volume 1 of the DEIS, Livestock grazing effects include trampling, soil compaction, and loss of vegetative cover. In addition, overuse in riparian zones affects the stability of stream channels, changes channel form (widening), and reduces resistance to floods.

Recommendation: We recommend the final selected alternative incorporate Alternative F utilization rates and minimum residual stubble height.

Minerals and Mining

The proposed Forest Plan does not bring forward some of the PACFISH/INFISH standards and guidelines related to mining and minerals. In particular, we note the elimination of standard MM-1, which states:

Standard MM-1. Avoid adverse impacts to listed species and designated critical habitat from mineral operations. If the Notice of Intent indicates that a mineral operation would be located in an RHCA and could affect attainment of RMOs or could adversely affect listed anadromous fish, then require a reclamation plan, approved Plan of Operations (or other such governing document), and reclamation bond. For effects that cannot be avoided, such plans and bonds must address the following items to attain RMOs and avoid adverse effects on listed anadromous fish: the costs of removing facilities, equipment, and materials; recontouring disturbed areas to approximate pre-mining topography; isolating and neutralizing or removing toxic or potentially toxic materials; salvage and replacement of topsoil; and seedbed preparation and re-vegetation. Ensure Reclamation Plan contain measurable attainment and bond release criteria for each reclamation activity.

The EPA has been working across multiple agencies and at multiple levels of government in order to ensure that mining operations are subject to adequate levels of financial assurance. We believe language such as that found in Standard MM-1 supports that objective.

Recommendations: We strongly encourage the Forests to continue to include standard MM-1 in the Forest Plan. We also recommend consideration of the standards and guidelines included within the Forest Plan for the Boise National Forest related to mining and minerals. Those standards and guidelines can be found at http://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5394129.pdf. The Mineral and Geology Resources section begins on page III-50. We encourage the Forests to incorporate some of the specificity within the Boise National Forest standards and guidelines into Forest Plan for the Blue Mountains.

³ <http://smallfarms.oregonstate.edu/sfn/spg09pasture>

Large Old Trees

Alternative E would manage for old forest and large diameter/old trees where they occur on the landscape based on a guideline that emphasizes retaining live trees with certain old tree characteristics. This would be a move away from screening trees from harvest based on diameter. The EPA is generally supportive of this direction. The view of the EPA is that while the eastside screening of trees over 21 inches has served to build trust among stakeholders and protect important remnant medium and large trees, a broad body of science now supports a more ecologically-based approach⁴. As the FEIS is developed, it would be helpful to have additional information about how older stands/trees would be identified. The DEIS references the 2008 Van Pelt guidelines⁵ as one way old trees can be identified. The guideline within the Draft Forest Plan, however, indicates that old tree characteristics should be developed on a site-specific project basis. This leaves some question as to how the Forests will ensure the intent of the Plan is achieved across all three Forests. In the FEIS and final Forest Plan, we encourage the Forest Service to include additional information about how older trees/stands will be identified.

Recommendation: Guideline OF-1 related to individual old trees should better define the approach to be used to identify older forest. We would support language indicating that the site specific approach for identifying old growth should take into account geographic context; tree size; tree age; tree species; spatial distribution; relative abundance; the historical (and future) range of variability; forest health; and the potential of an area to grow large trees.

Plan Objectives

Starting on page 238 of Volume 3, the DEIS provides a series of tables (A-48, A-49, and A-50) that outline objective statements for the three Blue Mountains Forests. The objectives associated with the final selected Alternative will be carried forward into the final Forest Plan. These tables are a helpful tools for synthesizing and communicating the intent of the Forest Plan. The utility of these tables would be augmented by the addition of some contextual information. As an example, under Objective 1.1 (Watershed Function) the tables provide objectives related to riparian restoration. It is unclear to what extent the objectives overlap, or are independent of one another (i.e. the extent to which the accomplishment of one objective can count toward the accomplishment of another). For example, can miles of restored “floodplain connections, channel morphology, channel structure, and flow regime” count toward the later objective of miles of “stream morphology restored”?

We are also interested in those objectives related to riparian restoration. We note that under Alternative E (the preferred alternative) there is an objective for the Umatilla National Forest to restore 165 acres (over 10 years) of riparian/wetland species composition by “increasing natural seedling, planting, fencing, or modifying riparian management.” For the same forest, there is also the objective of improving 525 acres annually of stream channel and aquatic habitat function by “improving riparian habitat conditions.” We recommend that the FEIS and Plan include additional context around these activities. We anticipate that the 525 acres to be improved annually would be the result of passive restoration, whereas the 165 acre target refers more to more active restoration, however this is not immediately clear from reading the table or introductory text.

⁴ http://www.fs.fed.us/pnw/publications/MMC_Synthesis_21Nov13.pdf

⁵ http://www.dnr.wa.gov/Publications/lm_hcp_west_oldgrowth_guide_full_lowres.pdf

Recommendation: We recommend the Forest Service clarify the extent to which Plan Objectives in Tables A-48 through A-50 overlap or are independent of one another. We further recommend the FEIS clarify which objectives relate to active versus passive management.

**U.S. Environmental Protection Agency Rating System for
Draft Environmental Impact Statements
Definitions and Follow-Up Action***

Environmental Impact of the Action

LO – Lack of Objections

The U.S. Environmental Protection Agency (EPA) review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

EC – Environmental Concerns

EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce these impacts.

EO – Environmental Objections

EPA review has identified significant environmental impacts that should be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no-action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

EU – Environmentally Unsatisfactory

EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potential unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the Council on Environmental Quality (CEQ).

Adequacy of the Impact Statement

Category 1 – Adequate

EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis of data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

Category 2 – Insufficient Information

The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analyzed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses or discussion should be included in the final EIS.

Category 3 – Inadequate

EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analyzed in the draft EIS, which should be analyzed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the National Environmental Policy Act and or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

* From EPA Manual 1640 Policy and Procedures for the Review of Federal Actions Impacting the Environment. February, 1987.